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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/623,407	10/19/2000	Thierry Kretz	RCA-90419	4982

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EXAMINER
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ART UNIT	PAPER NUMBER
2675	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/623,407	Applicant(s) Thierry et al.
	Examiner Amr Awad	Art Unit 2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Oct 19, 2000* .

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-4* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1, 2, and 4* is/are rejected.

7) ☒ Claim(s) *3* is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Information Disclosure Statement

1. The references cited in the Information Disclosure Statements filed September 5, 2000 and October 19, 2000 have been considered by the Examiner; see attached PTO-1449.

Drawings

2. The drawings are objected to because in figure 3, blocks 11, 15-17 should be identify with a labels to indicate its functions. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The following guidelines illustrate the preferred layout and content for patent applications. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

The following order or arrangement is preferred in framing the specification and, except for the reference to the drawings, each of the lettered items should appear in upper case, without underling or bold type, as section headings. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) Title of the Invention.

(b) Cross-Reference to Related Applications.

© Statement Regarding Federally Sponsored Research or Development.

(d) Reference to a "Sequence Listing," a table, or a computer program listing appendix submitted on compact disc (see 37 CFR 1.52(e)(5)).

(e) Background of the Invention.

1. Field of the Invention.

2. Description of the Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(f) Brief Summary of the Invention.

(g) Brief Description of the Several Views of the Drawing(s).

(h) Detailed Description of the Invention.

(I) Claim or Claims (commencing on a separate sheet).

(j) Abstract of the Disclosure (commencing on a separate sheet).

(k) Drawings.

(l) Sequence Listing, if on paper (see 37 CFR 1.821-1.825).

4. The abstract of the disclosure is objected to because in line 4, "P" in both occurrences should be changed to --P'-- to correspond to citation in the specification (page 3, lines 22-28) wherein the number of data lines N is equal to the number of blocks multiplied by the number of

lines in each block and to be consistent with (P') in line 5 of the abstract. Appropriate correction is required.

5. The disclosure is objected to because of the following informalities: in page 7 line 22, element (18) is specified as the counter modulo. However, there is no element (18) in the drawing. Examiner suggests that counter modulo should be designated with numeral (15) as disclosed in figure 3 and in page 7 lines 6-7. Appropriate correction is required.

Claim Objections

6. Claim 1 is objected to because of the following informalities: as best understood by the examiner, in line 4, "(N = P x N')" should be changed to --(N' = P' x N')--. This would correspond to the citation in the specification (page 3, lines 22-28) wherein the number of data lines N is equal to P x N' wherein P is the number of blocks and N' is the number of data lines in each block . Appropriate correction is required.

7. Claim 2 is objected to because of the following informalities: the claim recites "wherein the scan from 1 to N' then from N' to 1 is carried out every second selection line". This language may suggest that both scanning from 1 to N' and then from N' to 1 are carried out in each second selection line, which is not disclosed in the specification. Examiner suggests using a language similar to the one specified in claim 3 to clearly specify that the scanning is carried in a first

direction for one selection line and in a second direction for the second successive selection line. Appropriate correction is required.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US patent NO. 5,426,447) in view of Kazuhiro (Japanese Patent Publication 7-264591; electronic translation is provided by the examiner).

As to claim 1, Lee (figure 1) teaches a process for displaying data on a matrix display (14) (column 4, lines 22-38). Lee (figure 2) teaches N data lines (data lines D_1 to D_{384}; i.e., N = 384) and P selection lines (row lines 1 to Z; P = 240 in the example of figure 1) at the intersections of which are situated the image points or pixels (column 5, lines 31-37 and column 6, lines 33-41). Lee teaches that the N data lines are grouped into P' blocks of N' data lines (Lee teaches X groups wherein the example shown in figure 2 has 6 groups, each group includes 64 data lines) (column 5, lines 52-57), wherein N = P' x N' (the number of data lines is 384 which is equal to the number of groups (6) multiplied by the number of data lines for each group (64)). Lee teaches that each block receiving in parallel one of the P' data signals (video signal supplied to data line

D_1 to D_{64} for the first group) which is demultiplexed on the N' lines of the block (column 6 lines 48-60).

Lee does not expressly teach alternately, according to the selection lines, the scanning of the N' data lines of a block is carried out from 1 to N' and from N' to 1.

However, Kazuhiro teaches that the blocks of original image data stored in a storage part are scanned from a block on the upper left end of the image in the right direction (i.e, from 1 to N') in accordance with an original image data scanning program, and when the scanning reaches the right end, the succeeding block is horizontally scanned from the right end block in the left direction (i.e., from N' to 1) alternately (abstract, constitution and figure 2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to adapt Kazuhiro's teaching of scanning the data image alternately from left to right and then from right to left, to Lee's display device so as motivated by Kazuhiro, to raise the compression efficiency of image data by reading the block which always adjoined and because the difference of subject copy image data is small (see page 11 of the translation, paragraph titled "technical problem"). Furthermore, scanning the data from left to right and then from right to left will increase the speed of scanning data because no resetting time is needed to start scanning the data again from left to right.

As to claim 2, Lee does not teach that the scan from 1 to N' then from N' to 1 is carried out every two selection line.

However, as can be seen in figure 2, Kazuhiro clearly suggests the scanning is alternating every two lines (page 17, paragraph titled "description of drawings" see the related drawing 2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching suggested by figure 2 of Kazuhiro's device of having the scanning alternately carried out every two scanning lines (two selection lines) to be incorporated to Lee's device so that adjacent lines can be read continuously which increase the efficiency of picture compression. Furthermore, scanning the data from left to right and then from right to left will increase the speed of scanning data because no resetting time is needed to start scanning the data again from left to right.

As to claim 4, Lee does not teach a programmable logic circuit associated with line counter for determining the reversal of direction of scan.

However, Kazuhiro teaches a programmable logic circuit associated with a line counter determining the reversal of the direction of scan (figure 4 and page 7 of the translation paragraphs number 0037 and 0038). In these paragraphs, Kazuhiro shows a flow chart which describes the switching of the scanning data from left to right and right to left based on the counts (step 224).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Kazuhiro having a logic circuit associated with line counters to allow the scanning of data from left to right and then from right to left, to be incorporated to Lee's modified device because using a logic circuit and a counter in switching

between two actions is well known in the art and widely used because such logic circuit and a counter can be consider as simply IF statement to direct a software program. It is also known for its simplicity, reliability and of being inexpensive.

Allowable Subject Matter

10. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and to overcome the objection to the base claim set forth in this action.

11. The following is a statement of reasons for the indication of allowable subject matter:

None of the prior art of the record either singularly or in combination teaches or fairly suggests a scanning direction from first to last lines (1 to N') and from last to first line (N' to 1) being carried out for four successive selection lines, the scan being carried out in a first direction for two successive selection lines and in a second direction for the other two succeeding selection lines.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kihara et al. (US patent NO. 5,781,171) teaches a shift register driving circuit for bidirectional scans.

Kwon (US patent NO. 5,850,216) teaches an active matrix liquid crystal display driver circuit for sequential and double scanning.

Asada (US patent NO. 5,872,563) teaches a scanning circuit for image device and driving method for scanning circuit.

Maekawa (US Patent NO. 5,894,296) teaches a bidirectional signal transmission network and bidirectional signal transfer shift register.

Asada (US Patent NO. 6,020,871) teaches a bidirectional scanning circuit which can avoid malfunction of a signal and phase shift of the scanning pulse.

Yamazaki et al. (US Patent NO. 6,219,022) teaches a plurality of partial image display portions wherein the image to be read is scanned in two directions.

Wolfgang Bitzer (German Patent NO. DE-3630779C1) teaches secret transmission for video signals sending image in permutated series by placing lines in meandering form (e.g., first line scanning left to right and second right to left).

13. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231.

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amr Awad whose telephone number is (703) 308-8485. The examiner can normally be reached on Monday--Friday from 7:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Saras, can be reached on (703) 305-9720.

Amr Awad

A.A.

August 9, 2002.